Author Index

Achbarou, A., Mercereau-Puijalon, O., Autheman, J.M., Fortier, B., Camus, D. and Dubremetz, J.F. Characterization of microneme proteins of *Toxoplasma gondii* 223

Affranchino, J.L., see Pollevick, G.D. 247

Autheman, J.M., see Achbarou, A. 223

Barry, J.D., see Graham, S.V. 31

Blum, J.J., see Keegan, F.P. 161

Bonhomme, F., see Despres, L. 139

Bonnefoy, S., see Fandeur, T. 167

Borda, E.S., Sterin-Borda, L.J., Pascual, J.O., Gorelik, G., Felix, J.C., Von Kreuter, B.F. and Santos-Buch, C.A. *Trypanosoma cruzi* attachment to lymphocyte muscarinic cholinergic and beta adrenergic receptors modulates intracellular signal transduction 91

Callens, M. and Opperdoes, F.R. Chemical modification of fructose bisphospate aldolase from *Trypanosoma brucei* compared to aldolase from rabbit muscle and *Staphylococcus areus* 11

Callens, M., Kuntz, D.A. and Opperdoes, F.R. Kinetic properties of fructose bisphosphate aldolase from *Trypanosoma brucei* compared to aldolase from rabbit muscle and *Staphylococcus aureus* 1

Callens, M., Kuntz, D.A. and Opperdoes, F.R. Characterization of pyruvate kinase of *Trypanosoma brucei* and its role in the regulation of carbohydrate metabolism 19

Campbell, T.A., Zlotnick, G.W., Neubert, T.A., Sacci, Jr., J.B. and Gottlieb, M. Purification and characterization of the 3'-nucleotidase/nuclease from promastigotes of *Leishmania donovani* 100

Camus, D., see Achbarou, A. 223

Caspers, P., Etlinger, H., Matile, H., Pink, J.R., Stüber, D. and Takács, B. A *Plasmodium falciparum* malaria vaccine candidate which contains epitopes from the circumsporozoite protein and a blood stage antigen, 5.1. 143

Chavalitshewinkoon, P., see De Vries, E. 43

Cleator, M., see O'Hanlon, G.M. 179

Combes, C., see Despres, L. 139

Dame, J.B., see Mishra, V.S. 207

De Clerq, E., see De Vries, E. 43

De Vries, E., Stam, J.G., Franssen, F.F.J., Nieuwenhuijs, H., Chavalitshewinkoon, P., De Clerq, E., Overdulve, J.P. and Van der Vliet, P.C. Inhibition of the growth of *Plasmodium falciparum* and *Plasmodium berghei* by the DNA polymerase inhibitor HPMPA 43

Despres, L., Imbert-Establet, D., Combes, C., Bonhomme, F. and Monnerot, M. Isolation and polymorphism in mitochondrial DNA from Schistosoma mansoni 139

Dubremetz, J.F., see Achbarou, A. 223

Etlinger, H., see Caspers, P. 143

Etzion, Z., Murray, M.C. and Perkins, M.E. Isolation and characterization of rhoptries of *Plasmodium falciparum* 51

Fandeur, T., Bonnefoy, S. and Mercereau-Puijalon, O. In vivo and in vitro derived Palo Alto lines of *Plasmodium falciparum* are genetically unrelated 167

Feinstone, S.M., see Raghavan, N. 63

Felix, J.C., see Borda, E.S. 91

Fortier, B., see Achbarou, A. 223

Franssen, F.F.J., see De Vries, E. 43

Frasch, A.C.C., see Pollevick, G.D. 247

Gasser, R.B., Morahan, G. and Mitchell, G.F. Sexing single larval stages of *Schistosoma mansoni* by polymerase chain reaction 255

Gorelik, G., see Borda, E.S. 91

Gottlieb, M., see Campbell, T.A. 109

Graham, S.V. and Barry, J.D. Expression site-associated genes transcribed independently of variant surface glycoprotein genes in *Trypanosoma brucei* 31

Hill, G.C., see Wirtz, E. 119

Howells, R.E., see O'Hanlon, G.M. 179

Ilg, T., see Menz, B. 101

Imbert-Establet, D., see Despres, L. 139

Janse, C., see Van Belkum, A. 251

Jayaraman, K., see Raghavan, N. 63

Kahl, L., see Rivas, L. 235

Keegan, F.P. and Blum, J.J. Changes in intracellular levels of fructose 2,6-biphosphate and several glycolytic intermediates in *Leishmania major* promastigotes as a function of p02 161

Kemp, D.J., see Limpaiboon, T. 197

Kuntz, D.A., see Callens, M. 1

Kuntz, D.A., see Callens, M. 19

Lahm, H.-W., see Ridley, R.G. 245

Limpaiboon, T., Shirley, M.W., Kemp, D.J. and Saul, A. 7H8/6, a multicopy DNA probe for distinguishing isolates of *Plasmodium falciparum* 197

Lottspeich, F., see Menz, B. 101

Lubega, G.W. and Prichard, R.K. Beta-tubulin and benzimidazole resistance in the sheep nematode *Haemonchus contortus* 129

Maina, C.V., see Raghavan, N. 63

Manson, K., see Rivas, L. 235

Matile, H., see Caspers, P. 143

McElwain, T.F., Perryman, L.E., Musoke, A.J. and McGuire, T.C. Molecular characterization and immunogenicity of neutralization-sensitive *Babesia bigemina* merozoite surface proteins 213

McElwain, T.F., see Mishra, V.S. 207

McGuire, T.C., see McElwain, T.F. 213

McGuire, T.C., see Mishra, V.S. 207

McMahon-Pratt, D., see Rivas, L. 235 McReynolds, L.A., see Raghavan, N. 63

Menz, B., Winter, G., Ilg, T., Lottspeich, F. and Overath, P. Purification and characterization of a membrane-bound acid phosphatase of *Leishmania mexicana* 101

Mercer, J.G., see O'Hanlon, G.M. 179

Mercereau-Puijalon, O., see Achbarou, A. 223

Mercereau-Puijalon, O., see Fandeur, T. 167

Michalski, W.P. and Prowse, S.J. Superoxide dismutases in *Eimeria* tenella 189

Mishra, V.S., Stephens, E.B., Dame, J.B., Perryman, L.E., McGuire, T.C. and McElwain, T.F. Immunogenicity and sequence analysis of recombinant p58: a neutralization-sensitive, antigenically conserved *Babesia bigemina* merozoite surface protein 207

Mitchell, G.F., see Gasser, R.B. 255

Monnerot, M., see Despres, L. 139

Mons, B., see Van Belkum, A. 251

Morahan, G., see Gasser, R.B. 255

Munoz-Antonia, T., Richards, F.F. and Ullu, E. Differences in glucose transport between bloodstream and procyclic forms of *Trypanosoma brucei rhodesiense* 73

Murray, M.C., see Etzion, Z. 51

Musoke, A.J., see McElwain, T.F. 213

Myler, P.J., see Tripp, C.A. 151

Neubert, T.A., see Campbell, T.A. 109

Nieuwenhuijs, H., see De Vries, E. 43

Nutman, T.B., see Raghavan, N. 63

O'Hanlon, G.M., Cleator, M., Mercer, J.G., Howells, R.E. and Rees, H.H. Metabolism and fate of ecdysteroids in the nematodes *Ascaris suum* and *Parascaris equorum* 179

Opperdoes, F.R., see Callens, M. 1

Opperdoes, F.R., see Callens, M. 11

Opperdoes, F.R., see Callens, M. 19

Ottesen, E.A., see Raghavan, N. 63

Overath, P., see Menz, B. 101

Overdulve, J.P., see De Vries, E. 43

Pascual, J.O., see Borda, E.S. 91

Perkins, M.E., see Etzion, Z. 51

Perryman, L.E., see McElwain, T.F. 213

Perryman, L.E., see Mishra, V.S. 207

Pink, J.R., see Caspers, P. 143

Pollevick, G.D., Affranchino, J.L., Frasch, A.C.C. and Sánchez, D.O. The complete sequence of a shed acute-phase antigen of *Try-panosoma cruzi* 247

Prichard, R.K., see Lubega, G.W. 129

Prowse, S.J., see Michalski, W.P. 189

Raghavan, N., McReynolds, L.A., Maina, C.V., Feinstone, S.M., Jayaraman, K., Ottesen, E.A. and Nutman, T.B. A recombinant clone of *Wuchereria bancrofti* with DNA specificity for human lym-

phatic filarial parasites 63

Rees, H.H., see O'Hanlon, G.M. 179

Richards, F.F., see Munoz-Antonia, T. 73

Ridley, R.G., Lahm, H.-W., Takács, B. and Scaife, J.G. Genetic and structural relationships between components of a protective rhoptry antigen complex from *Plasmodium falciparum* 245

Rivas, L., Kahl, L., Manson, K. and McMahon-Pratt, D. Biochemical characterization of the protective membrane glycoprotein GP46/M-2 of *Leishmania amazonensis* 235

Sacci, Jr., J.B., see Campbell, T.A. 109

Santos-Buch, C.A., see Borda, E.S. 91

Saul, A., see Limpaiboon, T. 197

Scaife, J.G., see Ridley, R.G. 245

Shirley, M.W., see Limpaiboon, T. 197

Soteriadou, K.P., see Tzinia, A.K. 83

Stam, J.G., see De Vries, E. 43

Stephens, E.B., see Mishra, V.S. 207

Sterin-Borda, L.J., see Borda, E.S. 91

Stuart, K., see Tripp, C.A. 151

Stüber, D., see Caspers, P. 143

Sylvester, D., see Wirtz, E. 119

Sánchez, D.O., see Pollevick, G.D. 247

Takács, B., see Caspers, P. 143

Takács, B., see Ridley, R.G. 245

Tripp, C.A., Myler, P.J. and Stuart, K. A DNA sequence (LD1) which occurs in several genomic organizations in *Leishmania* 151

Tzinia, A.K. and Soteriadou, K.P. Substrate-dependent pH optima of gp63 purified from seven strains of *Leishmania* 83

Ullu, E., see Munoz-Antonia, T. 73

Van Belkum, A., Janse, C. and Mons, B. Nucleotide sequence variation in the β -tubulin genes from *Plasmodium berghei* and *Plasmodium falciparum* 251

Van der Vliet, P.C., see De Vries, E. 43

Von Kreuter, B.F., see Borda, E.S. 91

Winter, G., see Menz, B. 101

Wirtz, E., Sylvester, D. and Hill, G.C. Characterization of a novel developmentally regulated gene from *Trypanosoma brucei* encoding a potential phosphoprotein 119

Zlotnick, G.W., see Campbell, T.A. 109

Subject Index

Acid phosphatase, 101
Acyclic nucleoside, 43
Affinity purification, 101
African trypanosome, 119
cAMP, 91
Anthelmintic, 129
Antigenic determinants, 247
Antigenic diversity, 213
Ascarid nematode, 179

Babesia bigemina, 207, 213 Benzimidazole, 129, 251 Benzimidazole resistance, 129

Carbohydrate metabolism, 19 Catalase, 189 Chemical modification, 11 Chromosome mapping, 197 Circular DNA, 151 Circumsporozoite protein, 143 Class I nuclease, 109 Comparative study, 83

Developmental regulation, 119 Differentiation, 119 DNA fingerprinting, 197 cDNA nucleotide sequence, 139, 251 DNA polymerase inhibitor, 43 DNA sequence, 207, 247

Ecdysteroid, 179
Effector, 19
Eimeria tenella, 189
End-labelling, 139
Enzyme kinetics, 1
Enzyme purification, 109
Expression site-associated gene, 31

Fructose biphosphate aldolase, 11 Fructose biphosphate aldolase, 1 Fructose 2,6-biphosphate, 161

Gene, 207
Genetic analysis, 167
Genomic expression library, 63
Genomic organization, 151
Glucose transport, 73
Glucose-6-phosphate, 161
Glycosylphosphatidyl inositol, 247
cGMP, 91
gp63, 83

Haemonchus contortus, 129 Helper cell, 91 High-affinity binding, 129

HPMPA, 43

Immunoelectron microscopy, 223 Immunogenicity, 213 In vitro culture, 167 Inhibitor, 73 Intermediary metabolism, 161 Intracellular signal, 91

Kinetic characterization, 19

Leishmania, 83, 151, 235 Leishmania donovani, 109 Leishmania major, 161 Leishmania mexicana, 101 Length polymorphism, 139 Lymphatic filariasis, 63

Malaria, 43, 51, 143
Membrane glycoprotein, 235
Merozoite surface protein, 207, 213
Metabolic labeling, 223
Metabolism, 179
Metalloprotease, 83
Microneme, 223
Mitochondrial DNA, 139
Monoclonal antibody, 101
Multicopy DNA sequence, 151
Myosin, 63

3'-Nucleotidase/nuclease, 109

Optimum pH, 83 Oxygen tension, 161

Parasite killing, 189
PGE₂, 91
Phosphatidylinositol lipid anchor, 235
Phospho(enol)pyruvate, 161
Plasmodium berghei, 43, 251
Plasmodium falciparum, 43, 51, 143, 167, 197, 245
Polymerase chain reaction, 63, 255
Polymorphic probe, 197
Post-translational modification, 213
Protective antigen, 235
Protective rhoptry antigen, 245
Purine salvage, 109
Pyruvate kinase, 19
P46/M-2, 235

RAP-1, 245 Recombinant protein, 223 Restriction mapping, 139 Rhoptry, 51 Schistosoma mansoni, 255 Sex determination of larvae, 255 Shed-acute phase antigen, 247 Small chromosome, 151 Specific binding, 129 Substrate-dependent, 83 Superoxide dismutase, 189 Suppressor/cytotoxic cells, 91 Surface membrane, 109

β-Tubulin, 251 T lymphocyte, 91 Toxoplasma gondii, 223 Transcription, 31 Trypanosoma brucei, 1, 11, 19 Trypanosoma brucei rhodesiense, 31 Trypanosoma cruzi, 247 Trypanosome, 73 Tubulin, 129 Tubulin isoform, 129

Uganda Palo Alto strain, 167

Vaccine, 143 Variability, 167 Variant surface glycoprotein gene, 31

Wobble variation, 251 Wuchereria bancrofti, 63

